XML.gov Community of Practice

AN IDEA WHOSE TIME HAS COME AND GONE?

Venue & Presenter

DC Area XML User Group Meeting

In conjunction with the Balisage Conference

August 12, 2015

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Xml.gov Community of Practice (xmlCoP)

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Before the Beginning

Intelligence Community Extensible Markup Language (XML)
Report Prepared by Science Applications International Corporation
for the Office of Advanced Analytical Tools, Central Intelligence Agency
3 November 1999

Lessons Learned (Recommendations):

- In the question of structured versus unstructured, the ***structured editors clearly win***.
    - The ***native creation, editing, and storage of data as XML***;
    - an integrated parser to validate content as it is being entered;
    - to ***automatically save the data as XML***; and
    - in some cases ***tight integration with a CMS*** make structured editors a clear choice over unstructured editors.

Full report available at: http://xml.fido.gov/documents/completed/icml/index.htm

xmlCoP Genesis

- Two proposal made in E-mail message dated ***February 16, 2000***:
  - Specify a standard set of ***XML metatags*** for the classification of ***E-records*** governmentwide
  - With reference to Government Paperwork Elimination Act (GPEA) and the President's E-Gov Directive, explore the use of DTDs and ***XML schemas to render Standard and Optional Forms not only for non-proprietary exchange of data with databases but also for preservation as records***

    http://xml.fido.gov/documents/completed/genesis.htm

- Purpose of this event (a decade and a half later):
  - Experts in XML and people in government technology will make brief presentations followed by a panel on how ***data and document standards*** used for government ***information and metadata*** can intersect using XML.

XML Opportunities

XML-Related Opportunities
for Consideration by the CIO Council's
Enterprise Interoperability and Emerging Information Technology Committee
March 9, 2000

Martin Smith's conceptual proposal:

- Promote interoperability by developing a standard set of XML attributes/schemata for common Government data structures, taking fullest advantage of commercial schemata developed by industry standards organizations

  - Independent workgroup until opportunities clarified
  - Deliverable: Scope or "terms of reference" draft for EIEIT approval
  - Target date: 60 days from agreement to proceed

Opportunities highlighted by Owen Ambur:

- Establish a standard set of metatags for the classification of E-records Governmentwide

  - References:
    - Presidential E-Gov Directive #1*
    - 5 USC 552(a)(3)(A)(i), reasonable description for FOIA requests
    - 44 USC 3506(b)(4), current and complete inventory of information
    - 44 USC 3511, index of information systems, holdings (records), and dissemination products
    - WebGov http://w3.gsa.gov/webgov/webgov.nsf
    - XML Schema Specification http://www.w3.org/1999/05/schema-1st-wd
    - Resource Description Framework (RDF) http://www.w3.org/RDF/

- Render all Government forms in XML format in order to facilitate:

  - nonproprietary exchange of data among databases, while at the same time
  - providing for the preservation of completed E-forms as E-records, so that
  - the data in the databases can readily (automatically) be audited, and
  - information security can be assured

  - References:
    - Government Paperwork Elimination Act (GPEA)
    - Presidential E-Gov Directive #2*
    - W3C's XForms initiative http://www.w3.org/MarkUp/Forms/

*The President's E-Gov Directives are available at: http://www.pub.whitehouse.gov/uri-res/I2R?urn:pdi://oma.eop.gov.us/1999/12/20/5.text.1

Documents & Data

- XML bridges the gap between documents, data & metadata

- Document ~ Data in context
  - Without context data is meaningless … or worse
  - Can be misleading or intentionally misused
  - Lacks the attributes of a "record" (ISO 15489)
  - Cannot be efficiently & effectively audited

- Given appropriate metadata, virtually any E-records management process can be automated

COAX

Conference on Congressional Organizations' Application of XML (COAX)
Organized by Daniel Bennett
April 24, 2001

Comment from member of the audience:
    Senate Majority Leader Mitchell will not be writing XML.

My response:
    Yes, he will … implicitly in the data requirements of the legislation he helps to enact

My talking points: http://xml.fido.gov/documents/completed/coax_talking_points.htm
Meeting notes: http://xml.fido.gov/documents/completed/coax_meeting_notes.htm

CIOC Chartered Objectives

xmlCoP Chartered by the CIO Council in *June 2000* to:

1. Develop XML Best practices and Recommended Standards

2. Develop Partnerships with Key Industry and Public Groups Developing XML Standards and Specifications

3. Develop Partnerships with Existing Federal "Vertical" Communities to Accelerate the Delivery of XML Benefits

4. Conduct "Results-Oriented" Education and Outreach

1st charter, through September 30, 2002: http://xml.fido.gov/documents/completed/charter1st.htm

History of 3 charter renewals, though November 30, 2008: http://xml.fido.gov/documents/completed/history.htm

Definition of Success

What I told the CIO Council Leaders:

We will know that we have succeeded when XML has faded into the wordwork so that know one needs to know or care about it anymore

XML.gov Website

XML Registries

Registries

The full benefits of XML will be achieved only if organizations use the same data element definitions and those definitions are available for partners to discover and retrieve. A registry/repository is a means to discover and retrieve documents, templates, and software (i.e., objects and resources) over the Internet. The registry is used to discover the object. It provides information about the object, including its location. A repository is where the object resides for retrieval by users.

In partnership with the General Services Administration (GSA), the National Institutes of Standards and Technology (NIST) has piloted the use of registry/repository software. The proof-of-concept prototype was formerly available at http://xmlregistry.nist.gov/xml-gov/ A brief budget justification was prepared for the pilot.

GSA contracted Booz Allen Hamilton to compile the more detailed capital asset plan and business case (OMB Circular A-11, Exhibit 300) for the operational version of the registry, for consideration in the FY 2004 budget cycle. OMB invited other agencies to cosponsor the registry. (Mark Forman's August 26, 2002, memo containing that invitation was formerly available at http://www.feapmo.gov/feapmo_004.htm) The business case was discussed at the Open Forum on Metadata Registries in January 2003.

Registry ROI

Summary Comparison	Alternative 1 : Status Quo (Base Case)	Alternative 2 : Federated Model	Alternative 3 : Centralized Model
Total Cost (Then Year)	$125.7	$59.4	$23.1
Range	$123.4 to $128.6	$58.2 to $61.0	$22.3 to $24.2
Value Score	22.57	58.48	49.75
Range	13.53 to 31.60	35.55 to 74.33	31.05 to 63.48
Investment Cost (PV)	$19.3	$7.3	$4.9
Range	$18.8 to $20.0	$7.1 to $7.7	$4.6 to $5.2
ROI (Cost Savings and Avoidance to Investment)	.00%	543.84%	1342.86%
Range	.00% to .00%	532.01% to 555.40%	1309.49 % to 1405.97 %

- ROI in the range of **532 to 1,406 percent**
- President's FY 2004 budget requested $2.1 million
- Congress refused to fund

GJXDM → NIEM

➢ Ironically, the xmlCoP first became aware of the Global Justice XML Data Model (GJXDM) as a result of the events of 9/11/2001, due to which our scheduled speaker was unable to attend our monthly meeting.

➢ Pat McCreary & Robert Greeves of DOJ stepped into the breach.

➢ GJXDM's scope was subsequently broadened to become the National Information Exchange Model (NIEM).

Agenda
XML Working Group
Wednesday, September 19, 2001

Location: Board Room, second floor of the **American Institute of Architects building, at 1725 New York Avenue, NW**, Washington, DC 20006 (AIA is located behind the Octagon Building, directly across the street from GSA headquarters at 18th & F Streets, N.W. The closest Metro station is Farragut West on the blue and orange lines.)

Note: Due to the events of September 11, the agenda focusing on how XML can be used to enhance DoD Std. 5015.2 that had been planned for this meeting has been postponed to a date to be determined.

9:00	Co-Chairs & Participants Introductions, Announcements & Approval of Minutes
9:15	Pat McCreary or Robert Greeves, Office of Justice Programs, Department of Justice Global Justice Network & DOJ's XML-related Activities with State & Local Governments
10:15	Break
10:30	Co-Chairs & Participants Strategic Plan & Tasks for the XML Working Group
11:45	Upcoming meeting agendas, including a security agenda relating XML to PDD-63 and other policies
noon	Adjourn

GAO XML Report

ELECTRONIC GOVERNMENT: Challenges to Effective Adoption of the Extensible Markup Language, *April 2002*

Recommendations:

1. Develop a process with defined roles, responsibilities, and accountability for ***identifying and coordinating government-unique requirements and presenting consolidated, focused input to private sector standards-setting bodies*** during the development of XML standards.
2. Develop a project plan for ***transitioning the CIO Council's pilot XML registry effort into an operational governmentwide resource***.
3. Set policies and guidelines for managing and participating in the governmentwide XML registry, once it is operational, to ensure its effectiveness in ***promoting data sharing capabilities among federal agencies***.

   http://www.gao.gov/new.items/d02327.pdf

XML Tool Forums & Wikipedia

- DC XML UG (Betty Harvey) & xml.gov CoP sponsored XML tool forums

  - XML Authoring/Editing Tool Forum, *September 29, 2003*
    - Agenda -- http://www.eccnet.com/xmlug/XML-forum/agenda.html
    - Attendee Organizations -- http://www.eccnet.com/xmlug/XML-forum/attendee-org.html

  - Forum on XML Authoring/Editing & Content Management
    of Legislative & Regulatory Documents, *September 21, 2004*
    - Agenda -- http://www.eccnet.com/xmlug/XML-forum/agenda-2004.xml
    - Vendor List -- http://www.eccnet.com/xmlug/XML-forum/vendor-info.html

  - Wikipedia's Comparison of XML Editors
    - https://en.wikipedia.org/wiki/Comparison_of_XML_editors

CIO XML-First Vision
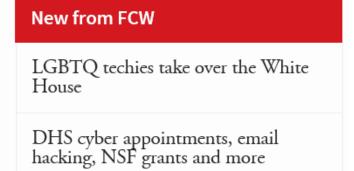
Federal CIO VanRoekel unveils plan to boost government innovation

By Camille Tuutti Oct 27, 2011

VanRoekel envisions *a set of principles such as "XML First*," "Web Services First" and other "firsts" that will inform "how we develop our government's systems" …

E.O. 13642 & GPRAMA

- Executive Order 13642, *May 9, 2013*
  - Making Open and *Machine Readable* the New *Default for Government Information*
    http://xml.fido.gov/stratml/carmel/EOOMRDwStyle.xml

  - Implication: *XSDs for* all *Federal records* series

- Section 10 of GPRA Modernization Act (GPRAMA, P.L. 111-352, *January 11, 2011*)

  - SEARCHABLE, MACHINE-READABLE PLANS AND REPORTS.-- For fiscal year 2012 and each fiscal year thereafter, each agency required to produce *strategic plans, performance plans, and performance updates* in accordance with the amendments made by this Act shall … produce such plans and reports *in searchable, machine-readable formats* … http://xml.fido.gov/stratml/references/PL111-532StratML.htm#SEC10

  - *Strategy Markup Language* (StratML) is an open, standard, machine-readable format (ISO 17469-1)

Xml.gov Domain

- xml.gov domain retired in conjunction with Obama Administration's initiative to simplify Uncle Sam's Web presence by eliminating domains

- Site lived on at xml.fido.gov

- GSA now retiring fido.gov domain

- Bruce Troutman plans to maintain legacy content of fido.gov domain at http://govwebs.net/

- Any need/desire to maintain/update xml.gov content anymore?

- Any need for record of the xmlCoP in the .gov domain?

Successes & Failures

SUCCESSES

✓ Gained attention of CIOC … temporarily

✓ Met monthly for six years

✓ Helped raise awareness of potentials

✓ xml.gov site (for 14 years)

✓ NIEM & other domain-specific schemas

BUT …

FAILURES

o XML Registry

o XSDs for Standard & Optional Forms
  o Data Reference Model (FEA DRM)

o Machine-Readable Records
  o With attributes specified in ISO 15489
    o Authenticity, Reliability, Integrity & Usability
    o Four Corners of the Document
  o XSDs
    o Metadata + the Records Themselves

o Planning & Accountability Domain in NIEM

Questions (for the Audience)

1) Have the CIOC-chartered purposes of the xmlCoP been met?

2) Are records being created and maintained in open, standard, machine-readable formats?

3) Is metadata about records being appropriately captured, indexed & made available for queries?

4) Can we easily discover and reuse XML data elements, schemas & schema fragments?

5) Are data and documents being appropriately shared in open, standard, machine-readable XML format?

6) Has XML faded into the wordwork so that no one needs to know or care about it anymore?

7) Is there any need for a .gov XML community of practice anymore? If so …
   a) What should the priorities be?
   b) Would you like to actively participate in pursuing them?